How Technology Can Help Disabled People Live More Normal Lives

**Third in a series of four reports on living with a disability in the US; earlier programs dealt with education and employment. *Transcript of radio broadcast:***

VOICE ONE:

Welcome to THIS IS AMERICA in VOA Special English. I'm Steve Ember.

VOICE TWO:

And I'm Faith Lapidus. This week on our program, we have the third part of our series on living with a disability in America. In January we looked at education. Last month we talked about jobs. Today we discuss assistive technology.

(MUSIC)

VOICE ONE:

Technology offers many different ways to help people with disabilities lead more normal lives. Devices that help them perform an activity are called assistive technology. Assistive technology can help people reach their personal and professional goals.

The invention of the telephone might not have been very exciting to a deaf person. But it led to a way to send text messages over a phone line with the use of a teletypewriter, or TTY.

VOICE TWO:

Today, with special care, Web site designers can make their sites highly accessible to disabled users.

There are both simple devices and very complex ones to help people with disabilities.

VOICE ONE:

Even something as low-tech as a small piece of soft plastic can be an assistive technology. Attached to a pencil, it might help a child hold the pencil better if the child has trouble writing.

VOICE TWO:

Blind people can have documents read out loud electronically on their computer. And for people who cannot use their arms to type, speech recognition programs may be the answer. These let people give commands to their computer or have their words turned into print.

What about a person who is not able to speak? There are now special devices to help them, too. An American company called Blink Twice produces a device that looks like a handheld computer game. The device is called Tango.

VOICE ONE:

Tango was invented by Richard Ellenson, the father of an eight-year-old boy with cerebral palsy. This condition affects a person's ability to move and speak. With Tango, his son Thomas can touch pictures that express his feelings or the words he wants to say. A voice then speaks the words that Thomas has chosen.

The company's Web site has examples of what Tango sounds like:

TANGO: "How was your day? OK. Where did you go today? Oh. Did you do anything fun? Let me think of another question. Did you see anybody I know? Ah-ha! Last question. Did you miss me? I missed you!"

VOICE TWO:

Other voices, ideas and words can be added to meet the interests and needs of the individual user. For example, when Thomas watches sports, he can play cheers for his team that were recorded in his father's voice.

Richard Ellenson says he wants Tango to help people with disabilities build relationships, not just sentences. Right now, Tango costs about seven thousand dollars. But this is a new device, and the price of new technology often comes down after a few years.

VOICE ONE:

There are many devices to help people with disabilities use computers. There are ways for people to operate a computer by moving their heads or even just their eyes.

There are also keyboards that can be used with only one hand. One of these small keyboards is called a FrogPad. One young girl used the FrogPad at school. Her mother said the small keyboard helped her daughter work normally at school, and her friends thought the FrogPad was great.

VOICE TWO:

Students with disabilities want to be like their friends; they want to be able to do things as normally as possible. So for young people, technology must not only help them do their work. The devices must also be cool.

Ben is a fifteen-year-old boy in Maine. He was born with a condition called spina bifida. He cannot move his arms or legs. He uses a small device called a TongueTouch Keypad, made by a California company, newAbilities Systems.

The keypad is placed in the mouth. Ben learned to use his tongue to touch different keys. They operate his telephone, his computer, his electric wheelchair, his bed and his music player.

Ben is able to get in and out of his house without help. And he can even turn his music up loud if he wants to.

(MUSIC)

VOICE ONE:

Sometimes, all it takes to improve on existing technology is a little imagination. Like adding a voice to clocks and watches so they announce the time. Or printing children's books in Braille with both raised marks and traditional text. That way the parent of a child who is blind can read the same book out loud while the child reads with his or her fingers.

Using a motorized wheelchair requires the ability to operate the controls. But what about people who are not able to use their hands? One solution is to attach a tube to the chair. The person operates the wheelchair by sucking air through the tube or blowing into it. This is called "sip and puff" technology, and it can also be used to operate other devices.

VOICE TWO:

Things that are designed to help the disabled may also make life easier for people who are not disabled. The opposite is also true.

Think of the millions of people who send and receive messages over cell phones and other wireless devices. This ability to communicate quickly by text messaging or e-mail is very useful. But imagine just how useful it can be to a person who is deaf.

(MUSIC)

VOICE ONE:

Many times, the technology that helps people with disabilities is invented by people who have disabilities themselves.

TecAccess is a company that helps government offices and companies provide technology for people with disabilities.

TecAccess has fifty-two employees. Forty-six of them have one or more disabilities. The company is in Virginia, but its employees work all over the world.

VOICE TWO:

A man named Don Dalton started a company in Illinois called Assistive Technologies. Mister Dalton became a quadriplegic in a swimming accident almost forty years ago. His company offers computer technology to help people with disabilities become more independent.

His newest product, in fact, is called Independence One. Once the system is put into a house, the user wears a wireless headset to control it. By voice, the user is able to control many devices and systems around the house.

Don Dalton uses the Independence One controller when he rides in the elevator in his office building. The system answers him in a woman's voice.

DON DALTON: "Wake up."  INDEPENDENCE ONE: "Hello. I'm here." DON DALTON: "Elevator down." INDEPENDENCE ONE: "Elevator going down."

VOICE ONE:

A video on his company's Web site also shows how Mister Dalton uses his voice to operate devices in his house. He can turn on the television, close a window in a different room, or work on his computer, all by using his voice.

He also uses the controller to make telephone calls over the Internet.

DON DALTON: "Start computer phone." INDEPENDENCE ONE: "Starting computer phone. Please say login." DON DALTON: "Login." INDEPENDENCE ONE: "Logging in." DON DALTON: "865-7004. Dial phone." INDEPENDENCE ONE: "Thank you. Dialing." INDEPENDENCE ONE: "I'm calling the cell phone on my wheelchair and it's ringing. [sound]"

(MUSIC)

VOICE TWO:

In the United States, the federal government is expected to be a leader in supporting the use of assistive technology. For example, federal agencies are required by law to purchase or develop technology that can be used by all employees.

The government is providing money to research new assistive technologies. Loans are also available to help disabled federal employees and others to buy equipment. For example, a disabled person who owns a computer may be able to work from home instead of having to travel to an office.

Research centers are working to improve technology for people with disabilities. They are working in the areas of education, employment, computers, communication and community living.

(MUSIC)

VOICE ONE:

Assistive technology can do a lot to improve the quality of life for people with disabilities.

That is, if the technology is available to them. Sometimes it can be very costly. People with a disability, especially a severe disability, have lower earnings and higher poverty rates than the general population. But government programs and private organizations may be able to help them get the assistance they need.

VOICE TWO:

Next month we have the fourth and final report in our series on living with a disability in America. Find out how recreation programs are helping people with disabilities have fun like they might never have thought possible.

VOICE ONE:

And if you missed any of the earlier reports, you can find transcripts and audio files at voaspecialenglish.com.

Our program was written by Karen Leggett and produced by Caty Weaver. I'm Steve Ember with Faith Lapidus. Join us again next week for THIS IS AMERICA in VOA Special English.